

#42

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/833,245

DATE: 04/30/2001

TIME: 09:10:20

Input Set : N:\jumbos\PF546PCTSL.txt

Output Set: N:\CRF3\04302001\I833245.raw

P.5

4 <110> APPLICANT: Human Genome Sciences, Inc.
 6 <120> TITLE OF INVENTION: Albumin Fusion Proteins
 8 <130> FILE REFERENCE: PF546PCT
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/833,245
 11 <141> CURRENT FILING DATE: 2001-04-12
 13 <150> PRIOR APPLICATION NUMBER: 60/229, 358
 14 <151> PRIOR FILING DATE: 2000-04-12
 16 <150> PRIOR APPLICATION NUMBER: 60/256, 931
 17 <151> PRIOR FILING DATE: 2000-12-21
 19 <150> PRIOR APPLICATION NUMBER: 60/199, 384
 20 <151> PRIOR FILING DATE: 2000-04-25
 22 <160> NUMBER OF SEQ ID NOS: 2267
 24 <170> SOFTWARE: PatentIn Ver. 2.1
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 23
 28 <212> TYPE: DNA
 29 <213> ORGANISM: Artificial Sequence
 31 <220> FEATURE:
 32 <221> NAME/KEY: primer_bind
 33 <223> OTHER INFORMATION: primer useful to clone human growth hormone cDNA
 35 <400> SEQUENCE: 1
 36 cccaagaatt cccttatcca ggc 23
 39 <210> SEQ ID NO: 2
 40 <211> LENGTH: 33
 41 <212> TYPE: DNA
 42 <213> ORGANISM: Artificial Sequence
 44 <220> FEATURE:
 45 <221> NAME/KEY: primer_bind
 46 <223> OTHER INFORMATION: primer useful to clone human growth hormone cDNA
 48 <400> SEQUENCE: 2
 49 gggaagctta gaagccacag gatccctcca cag 33
 52 <210> SEQ ID NO: 3
 53 <211> LENGTH: 16
 54 <212> TYPE: DNA
 55 <213> ORGANISM: Artificial Sequence
 57 <220> FEATURE:
 58 <221> NAME/KEY: misc_structure
 59 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments
 60 with non-cohesive ends.
 62 <400> SEQUENCE: 3
 63 gataaagatt cccaac 16
 66 <210> SEQ ID NO: 4
 67 <211> LENGTH: 17
 68 <212> TYPE: DNA
 69 <213> ORGANISM: Artificial Sequence
 71 <220> FEATURE:
 72 <221> NAME/KEY: misc_structure

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/833,245

DATE: 04/30/2001

TIME: 09:10:20

Input Set : N:\jumbos\PF546PCTSL.txt

Output Set: N:\CRF3\04302001\I833245.raw

```

73 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments
74     with non-cohesive ends.
76 <400> SEQUENCE: 4
77 aattgttggg aatcttt                                     17
80 <210> SEQ ID NO: 5
81 <211> LENGTH: 17
82 <212> TYPE: DNA
83 <213> ORGANISM: Artificial Sequence
85 <220> FEATURE:
86 <221> NAME/KEY: misc_structure
87 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments
88     with non-cohesive ends.
90 <400> SEQUENCE: 5
91 ttaggcttat tcccaac                                     17
94 <210> SEQ ID NO: 6
95 <211> LENGTH: 18
96 <212> TYPE: DNA
97 <213> ORGANISM: Artificial Sequence
99 <220> FEATURE:
100 <221> NAME/KEY: misc_structure
101 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments
102     with non-cohesive ends.
104 <400> SEQUENCE: 6
105 aattgttggg aataagcc                                     18
108 <210> SEQ ID NO: 7
109 <211> LENGTH: 24
110 <212> TYPE: PRT
111 <213> ORGANISM: Artificial Sequence
113 <220> FEATURE:
114 <221> NAME/KEY: SITE
115 <222> LOCATION: 1)..(19)
116 <223> OTHER INFORMATION: invertase leader sequence
118 <220> FEATURE:
119 <221> NAME/KEY: SITE
120 <222> LOCATION: 20)..(24)
121 <223> OTHER INFORMATION: first 5 amino acids of mature human serum albumin
123 <400> SEQUENCE: 7
124 Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys
125   1           5           10           15
127 Ile Ser Ala Asp Ala His Lys Ser
128           20
131 <210> SEQ ID NO: 8
132 <211> LENGTH: 21
133 <212> TYPE: DNA
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
137 <221> NAME/KEY: misc_structure
138 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
139     fragments with non-cohesive ends.

```

RAW SEQUENCE LISTING

DATE: 04/30/2001

PATENT APPLICATION: US/09/833,245

TIME: 09:10:20

Input Set : N:\jumbos\PF546PCTSL.txt

Output Set: N:\CRF3\04302001\I833245.raw

141 <400> SEQUENCE: 8
142 gagatgcaca cctgagtgag g 21
145 <210> SEQ ID NO: 9
146 <211> LENGTH: 27
147 <212> TYPE: DNA
148 <213> ORGANISM: Artificial Sequence
150 <220> FEATURE:
151 <221> NAME/KEY: misc_structure
152 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
153 fragments with non-cohesive ends.
155 <400> SEQUENCE: 9
156 gatcctgtgg ctgcgatgca cacaaga 27
159 <210> SEQ ID NO: 10
160 <211> LENGTH: 24
161 <212> TYPE: DNA
162 <213> ORGANISM: Artificial Sequence
164 <220> FEATURE:
165 <221> NAME/KEY: misc_structure
166 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
167 fragments with non-cohesive ends.
169 <400> SEQUENCE: 10
170 ctcttggtgtg catcgaagcc acag 24
173 <210> SEQ ID NO: 11
174 <211> LENGTH: 30
175 <212> TYPE: DNA
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <221> NAME/KEY: misc_structure
180 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
181 fragments with non-cohesive ends.
183 <400> SEQUENCE: 11
184 tgtggaagag cctcagaatt tattcccaac 30
187 <210> SEQ ID NO: 12
188 <211> LENGTH: 31
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <221> NAME/KEY: misc_structure
194 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
195 fragments with non-cohesive ends.
197 <400> SEQUENCE: 12
198 aattggtggg aataaattct gaggtcttc c 31
201 <210> SEQ ID NO: 13
202 <211> LENGTH: 47
203 <212> TYPE: DNA
204 <213> ORGANISM: Artificial Sequence
206 <220> FEATURE:
207 <221> NAME/KEY: misc_structure
208 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA

RAW SEQUENCE LISTING

DATE: 04/30/2001

PATENT APPLICATION: US/09/833,245

TIME: 09:10:20

Input Set : N:\jumbos\PF546PCTSL.txt

Output Set: N:\CRF3\04302001\I833245.raw

```

209      fragments with non-cohesive ends.
211 <400> SEQUENCE: 13
212 ttaggcttag gtggcgggtg atccggcggt ggtggatctt tcccaac      47
215 <210> SEQ ID NO: 14
216 <211> LENGTH: 48
217 <212> TYPE: DNA
218 <213> ORGANISM: Artificial Sequence
220 <220> FEATURE:
221 <221> NAME/KEY: misc_structure
222 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
223      fragments with non-cohesive ends.
225 <400> SEQUENCE: 14
226 aattgttggg aaagatccac caccgccgga tccaccgcca cctaagcc      48
229 <210> SEQ ID NO: 15
230 <211> LENGTH: 62
231 <212> TYPE: DNA
232 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
235 <221> NAME/KEY: misc_structure
236 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
237      fragments with non-cohesive ends.
239 <400> SEQUENCE: 15
240 ttaggcttag gcggtggtgg atctggtggc ggcgatctg gtggcgggtg atccttccca 60
241 ac      62
244 <210> SEQ ID NO: 16
245 <211> LENGTH: 63
246 <212> TYPE: DNA
247 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
250 <221> NAME/KEY: misc_structure
251 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
252      fragments with non-cohesive ends.
254 <400> SEQUENCE: 16
255 aattgttggg aaggatccac cgccaccaga tccgccgcca ccagatccac caccgcctaa 60
256 gcc      63
259 <210> SEQ ID NO: 17
260 <211> LENGTH: 1782
261 <212> TYPE: DNA
262 <213> ORGANISM: Homo sapiens
264 <220> FEATURE:
265 <221> NAME/KEY: CDS
266 <222> LOCATION: (1)..(1755)
269 <400> SEQUENCE: 17
270 gat gca cac aag agt gag gtt gct cat cgg ttt aaa gat ttg gga gaa      48
271 Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu
272 1      5      10      15
274 gaa aat ttc aaa gcc ttg gtg ttg att gcc ttt gct cag tat ctt cag      96
275 Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln
276      20      25      30

```

RAW SEQUENCE LISTING

DATE: 04/30/2001

PATENT APPLICATION: US/09/833,245

TIME: 09:10:20

Input Set : N:\jumbos\PF546PCTSL.txt

Output Set: N:\CRF3\04302001\I833245.raw

278 cag tgt cca ttt gaa gat cat gta aaa tta gtg aat gaa gta act gaa 144
 279 Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu
 280 35 40 45
 282 ttt gca aaa aca tgt gtt gct gat gag tca gct gaa aat tgt gac aaa 192
 283 Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys
 284 50 55 60
 286 tca ctt cat acc ctt ttt gga gac aaa tta tgc aca gtt gca act ctt 240
 287 Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu
 288 65 70 75 80
 290 cgt gaa acc tat ggt gaa atg gct gac tgc tgt gca aaa caa gaa cct 288
 291 Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro
 292 85 90 95
 294 gag aga aat gaa tgc ttc ttg caa cac aaa gat gac aac cca aac ctc 336
 295 Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu
 296 100 105 110
 298 ccc cga ttg gtg aga cca gag gtt gat gtg atg tgc act gct ttt cat 384
 299 Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His
 300 115 120 125
 302 gac aat gaa gag aca ttt ttg aaa aaa tac tta tat gaa att gcc aga 432
 303 Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg
 304 130 135 140
 306 aga cat cct tac ttt tat gcc ccg gaa ctc ctt ttc ttt gct aaa agg 480
 307 Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Phe Phe Ala Lys Arg
 308 145 150 155 160
 310 tat aaa gct gct ttt aca gaa tgt tgc caa gct gct gat aaa gct gcc 528
 311 Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala
 312 165 170 175
 314 tgc ctg ttg cca aag ctc gat gaa ctt cgg gat gaa ggg aag gct tcg 576
 315 Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser
 316 180 185 190
 318 tct gcc aaa cag aga ctc aaa tgt gcc agt ctc caa aaa ttt gga gaa 624
 319 Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu
 320 195 200 205
 322 aga gct ttc aaa gca tgg gca gtg gct cgc ctg agc cag aga ttt ccc 672
 323 Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro
 324 210 215 220
 326 aaa gct gag ttt gca gaa gtt tcc aag tta gtg aca gat ctt acc aaa 720
 327 Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys
 328 225 230 235 240
 330 gtc cac acg gaa tgc tgc cat gga gat ctg ctt gaa tgt gct gat gac 768
 331 Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp
 332 245 250 255
 334 agg gcg gac ctt gcc aag tat atc tgt gaa aat cag gat tcg atc tcc 816
 335 Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser
 336 260 265 270
 338 agt aaa ctg aag gaa tgc tgt gaa aaa cct ctg ttg gaa aaa tcc cac 864
 339 Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His
 340 275 280 285
 342 tgc att gcc gaa gtg gaa aat gat gag atg cct gct gac ttg cct tca 912

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequenc Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields f each sequence which presents at least ne n r Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/833,245

DATE: 04/30/2001

TIME: 09:10:21

Input Set : N:\jumbos\PF546PCTSL.txt

Output Set: N:\CRF3\04302001\I833245.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number

L:708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:798 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:887 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:977 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:1183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:1287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:1854 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74
L:1908 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76
L:1952 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77
L:1955 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77
L:1987 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78
L:1990 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78
L:1993 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78
L:2304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82
L:2307 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82
L:2310 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82
L:2356 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83
L:2359 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83
L:2362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83
L:2466 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86
L:2497 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87
L:2557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89
L:2596 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91
L:2693 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95
L:2699 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95
L:2720 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95
L:2823 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99
L:2992 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101
L:2995 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101
L:3198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:104
L:3201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:104
L:3204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:104
L:3514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:115
L:3523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:115
L:3702 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:124
L:3705 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:124
L:3720 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:124
L:3759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125
L:3901 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:127
L:3904 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:127
L:3916 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:127
L:4013 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:131
L:4177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137
L:4534 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146
L:4543 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146
L:4549 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146
L:4555 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/833,245

DATE: 04/30/2001

TIME: 09:10:21

Input Set : N:\jumbos\PF546PCTSL.txt

Output Set: N:\CRF3\04302001\I833245.raw

L:4567 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146
L:4787 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154
L:4790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154